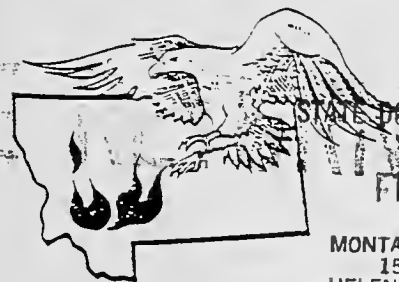


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# FIRE GUARD

Emergency Services Newsletter

Number 49 January 1991

"Happy New Year to all!"

Dear Ladies and Gentlemen, Chiefs, Asst. Chiefs, Paid, Part-Paid, Volunteers, Inspectors, Captains, Engineers, Drivers, Fire Fighter I, II and III's, Mechanics, Lieutenants, Fire Marshals, Trainers, Investigators, and the many fire associations of the State:

This letter is to ask us all to work together for a common cause.

We have all been there and will continue to return to the real reason for our existence. That is to provide a service to the citizens of this state. It may be unlocking a door for the child locked in a bathroom; it may be to check a smoke detector for an elderly resident; it may be extinguishing a fire; and it may be removing a body from a burned structure.

Whatever our perceived goal, it is basically the same. Yes, we all do have separate problems as we look at our individual organizations - paid fire fighters are concerned with pay, volunteers with equipment funding, volunteers with retirements, paid fire fighters with retirement, fire service areas with code enforcement, fire districts with boundaries and funding, volunteers that do not have any retirement.

What have we all done? It is evident that we have let our individual goals over shadow our collective goal. The collective goal is that of our primary task which is the reason for existence.

As we look into the future and cautiously approach the next legislative session, it is time we attempted a collective attack.

With our present activities, those that serve in the legislature see no uniformity in the Fire Service. We as a group of people need

to work together on all problems and begin to look at the overall Fire Service, delivery system in this state. It may not be popular, it may not be easy, but as the old saying goes, "United we stand, divided we fall."

From my point of view and years of service, we have been slowly falling. It is time and it is critical that we as the Fire Service in this State regroup to regain control our own destiny.

Larry E. McCann  
Member of Montana's Fire Service

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MSUES FIRE TRAINING SCHOOL  
2100 16th Avenue South  
Great Falls 59405-4997 761-7885

MONTANA STATE FIRE MARSHAL  
303 North Roberts Room 371  
Helena 59620 444-2050

DEPARTMENT OF STATE LANDS  
2705 Spurgin Road  
Missoula 59801 542-4300



## **MONTANA FIRE INCIDENT REPORTING SYSTEM - 1990 SUBMITTAL DEADLINE**

By A.L. Varone

Well, it's that time of the year again.....time to submit the final incident information for 1990. The deadline for receiving the data is **FEBRUARY 28, 1991**. That means any information we receive after that date will not be included in the federal program. We will have about a month to enter all your year-end information into our system, make corrections, run reports and mail it to NFIC.

The last few years have been a learning experience for all of us. We have attempted to comply with the federal guidelines and it has been, at times, a real challenge. Two years ago was a nightmare, last year was much better and this year has been a year all of us can be proud of.

It is always difficult to make changes, changes of any kind. The Montana reporting system is no different. It has been our goal to bring Montana up to a standard that she can be proud of; to be sure that the information collected and distributed is complete and accurate.

Partial or incorrect information creates erroneous data. It's kind of like the illustrations we used to get at school when we were kids; you know, the ones that said, "What's wrong with this picture?". At first glance, the scene looks okay; but, upon closer inspection, several discrepancies or

inconsistencies appear. That is what happens to the reporting system. Wrong or incomplete information can give the appearance of a complete picture, but the picture is not correct.

We rely on your expertise and dedication to provide the "right picture"; what, we believe, you want for Montana. Last year Montana received an achievement award. It is only through your desire to represent your department factually that we can assure others that what we introduce is the **WHOLE PICTURE**. We thank you for all your hard work. It will pay off for Montana.

## **TEDDY TANK**

By Rich Levandowski

A recent issue has brought light to a section of the U.F.C. which requires clarification. The question which has been posed is: According to "Testing", Sec.79.708, second to last sentence states, "Piping that may contain flammable or combustible liquids shall not be tested pneumatically."

Does this mean that tanks and/or piping that contained flammable/combustible liquids cannot be pneumatically tested with one of the inert gases such as nitrogen or carbon dioxide? Answer: No. Tank and pipe testing can be performed using an inert gas.

## **EXPLANATION**

The intent of the code is to prevent testing of explosive atmospheres, like those found in existing tanks and piping, with normal air. As you are all aware, normal air, compressed or otherwise, supports combustion. Inert gases such as nitrogen and carbon dioxide do not.

What takes place in the testing procedure is a reduction of the vapors



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in the closed container (tank or piping) from the "upper explosive limits" (UEL/to rich) to the "lower explosive limits" (LEL/to lean). As this reduction from the UEL to the LEL takes place, the atmosphere passes through the critical "explosive range". Use of normal air, a combustion supporter, significantly increases the potential for an explosion; exhaust gases from internal combustion engines do likewise.

On the other hand, when an inert gas such as nitrogen or carbon dioxide are used, this explosive condition is not created because the inert gases do not support combustion. It must be noted here that 'pneumatic', when referenced in the UFC, generally pertains to 'normal air' and any gases which support combustion, it does not necessarily include those gases that do not support combustion.

It is, therefore, concluded that inert gases such as nitrogen and carbon dioxide may be used to test flammable/combustible atmospheres in existing tanks and piping.

It must further be noted that any equipment utilized for this testing procedure shall carry a UL or equivalent label or listing for approval, and the equipment shall be capable of detecting leaks as required by the federal standards.

This interpretation is a result of consultation with Mr. Jeff Shapiro, WFCFA.

## **JUVENILE FIRESETTERS CONFERENCE**

A Juvenile Firesetters Conference has been scheduled for February 8-9, 1991 at the Children's Hospital Conference Center in Denver.

The conference will address psychodynamics and treatment options, interviewing techniques, legal issues, community resources and networking. The fee is \$125.00.

For more information, contact Jessica White, Conference Coordinator, The Children's Hospital, 1056 E. 19th. Avenue, B175, Denver, Colo. 80218 (303) 861-6945.

## **CODE QUESTIONS**

Following are some code questions that may be applicable to your area. If you have a question that you would like to appear in this section of the Fire Guard, send it to the Fire Marshal Bureau, 303 North Roberts, Room 371, Helena, Montana 59620-1417 or give us a call at 444-2050.

Q -- When a small appliance develops a failure, causing sparks to be discharged, and the fire department is notified, do you code this as a structure fire?

A -- No, the code would be a 45 - Equipment Arcing.

Q -- How do you code a firefighter casualty when the firefighter dies a few days following the injury?

A -- The first casualty report should be coded in accordance with the severity of the injury. Following the death of the firefighter, a Change Report MUST be submitted changing the Severity Code to a 6 - Died subsequent to arrival at the hospital.

Q -- A tear-gas bomb was intentionally thrown into a building to evacuate suspects. This action resulted in a fire. How should the Ignition Factor be coded?

A -- Use Code 39 - Misuse of Heat of Ignition Not Classified.

Q -- For a non-fire incident where a fireman is injured, does the entire MFIRS report need to be filled out?

A -- No, the entire form need not be completed; only lines A-I need to be completed. A warning flag will be created in EDIT/UPDATE (20 record Not Needed) because the Edit does not look for the 20 Record on a non-fire incident. The injury and fatality total will be accepted.

## **HAVRE MFIRS SEMINAR**

By A.L. Varone

On Tuesday, November 13, a class was conducted, on the Montana Fire Incident Reporting System, at the Havre Fire Department. Invitations were sent to all fire departments in the area. The Incident Report was explained, item by item, and discussed thoroughly.

One question was asked, that needed to be researched before answering. I called Sheldon Richardson, National Technical Assistance Member, and requested assistance. The Question was: If there is a fire in the main building of a lumber yard and it spreads to wood piles stacked outside, are these stacks considered separate exposures? Also, if there is a fence around some of the stacked piles, does it effect the exposure?

The stacked piles, whether or not inclosed by a fence, is not considered a separate or individually separate exposures. They are included as part of the original structure fire. If, however and for example, there is a fork lift located in the stacked lumber area, the fork lift is judged as an exposure.

According to Mr. Richardson, this question has been addressed at a national level before and, although there is good argument for several responses, it has been decided the above coding would best identify most situations and will be adopted for reporting purposes.

It is the Bureau's intention to begin conducting MFIRS classes in 1991 pending available funding.

## **UNIFORM FIRE CODE INTERPRETATION**

By Jeffrey M. Shapiro, P.E.

Due to numerous inquiries from fire and building officials, this month's column addresses application of Chapter 9 of the Uniform Building Code to classify the occupancy of woodworking establishments.

Q1 Is it appropriate to use dust concentration tests of existing woodworking shops as a guide to classify new shops if it can be demonstrated that the operations are similar?

A1 Existing operations may not adequately reflect the hazards associated with new operations, and we would not recommend using such a comparison as a basis for classification.

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Q2 In determining the quantity of dust to be considered, some believe that quantities in dust collection systems should not be included. Should the amount of the dust in suspension be the only quantity considered for the purpose of determining the occupancy classification?

A2 No, U.B.C. Section 901, Division 2, Item 6 states, "Combustible dusts in suspension or capable of being put into suspension in the atmosphere of the room or area".

Also, Table No. 9-A, Footnote No. 7 states, "A dust explosion potential is considered to exist

of one pound or more of combustible dust per 1,000 cubic feet of volume is normally in suspension or could be put into suspension in all or a portion of an enclosure or inside pieces of equipment. This also includes combustible dust which accumulates on horizontal surfaces inside buildings or equipment and which could be put into suspension by an accident, sudden force or small explosion".

Both the text and the footnote reference the quantity of dust capable of being put into suspension. Footnote No. 7 also indicates that dust contained within an enclosure or piece of equipment is considered. Dust collection ductwork is enclosed equipment and does create an explosion potential, as demonstrated by requirements in the U.B.C. and U.M.C. for ductwork explosion venting.

classification be designated as a Group B, Division 2 Occupancy contingent upon substantiating tests after construction is completed. If tests failed to support the Group B, Division 2 Occupancy classification, it would be difficult to install area separation walls and sprinklers after the building is completed and occupied.

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Q3 Is it appropriate to classify a woodworking shop as a Group B, Division 2 Occupancy subject to verification testing by an industrial hygienist once the facility is in operation?

A3 Dust producing operations are typically classified as Group H, Division 2 Occupancies based upon the difficulty of demonstrating otherwise. For example, since dust accumulation on surfaces capable of being put into suspension and local concentrations must be considered, even housekeeping efficiency and frequency have a bearing on the quantity of dust that can be suspended in the atmosphere.

We do not recommend that the

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Q4 Should the dust concentration be determined by dividing the total quantity of dust anticipated by the entire open space of a room containing dust producing equipment?

A4 No, the evaluation of dust explosion should consider whether a 1 pound per 1000 cubic foot concentration could be developed at any location. Aggregate concentration over a large area will not predict the potential for a localized explosion. Note that Footnote 7 uses the statement "...in all or a portion of an enclosure or inside pieces of equipment." Admittedly, this evaluation is difficult; however, most code officials take the conservative approach of classifying dust producing operations as Group H Division 2 Occupancies unless demonstrated otherwise by the owner or developer. There is no commonly accepted practice for such demonstration to our knowledge.

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Q5 When would a building be classified as a Group H, Division 3 Occupancy due to combustible dusts per Item 7 of U.B.C. 901(a) Division 3?

A5 Section 901(a), Division 3, Item No. 7 states that a Group H, Division 3 Occupancy exists if

the quantity of hazardous materials exceeds the exempt amounts listed in Table No. 9-A for "flammable solids, including combustible fibers and dusts, except for dusts included in Division 2." Restating this section, if dust is not in suspension or capable of being put into suspension according to Division 2, then it is to be regulated as a flammable solid, and Table No. 9-A sets forth a threshold quantity of 125 pounds for storage and 25 pounds in use. For example, this might include some type of powder coating operation in a closed system or closed storage of a material classified as a dust.

In conclusion, dust producing operations typically cause portions of buildings where such operations are present, to be classified as Group H, Division 2 Occupancies. It is recognized that the allowable areas for Group H, Division 2 Occupancies are very restrictive; however, these occupancies are considered to present significant fire and explosive hazards.

(Western Fire Chiefs Association, News Quarterly, Summer 1990 Edition, Ontario, Ca.)

## ***FIRE DEPARTMENT MAILING LIST***

The Fire Marshal Bureau maintains a register of all fire reporting jurisdictions, for record keeping and informational purposes. In addition, this register has been available as a mailing list to interested parties.

The information maintained includes the department name, FDID number, county, current fire chief's name, address, and phone number. In many instances the home and work telephone is listed, especially for volunteer fire chiefs.

This article is presented for all

fire chiefs in Montana. If you are opposed to the Bureau mailing this list to private concerns, please send a letter to the attention of A.L. Varone, Fire Marshal Bureau, 303 North Roberts, Room 371, Helena, Montana 59620-1417 stating your resistance.

If opposition is received, the list will not be accessible through the mail. It will still be available should an individual wish to come into the office and copy the record.

## ***NFPA #90-5: FIRE FACTS ARSON FIRES AND LOSSES FALL IN 1989***

### ***STILL TOP CAUSE OF DOLLAR LOSS TO FIRE***

Incendiary and suspicious fires declined again in 1989 but remained the #1 cause of property damage due to fire in the U.S. Juvenile firesetters continue to account for the largest share of the arson problem. And for the first time, it became possible to estimate just how small a fraction of potential arson cases ever lead to arrest and conviction.

Direct property damage to structures and vehicles due to incendiary or suspicious causes totalled \$1.697 billion, a drop of 2.8%, according to statistics compiled by NFPA. When outdoor fires and a proportional share of fires with unknown causes are added, losses to arson or suspected arson exceed \$2 billion, or roughly one dollar for every four lost to fire. The number of arson or suspected arson fires typically runs close to 600,000, most of them outdoor trash or grass fires. The number of incendiary and suspicious

fires fell 2.5% to 97,000 in 1989, and the number of incendiary and suspicious vehicle fires fell 13.2% to 46,000. The death toll in the structure fires fell 16.9% to 615.

#### LONG-TERM TRENDS POSITIVE

The NFPA has estimated the number of incendiary and suspicious fires since 1977, and in 10 of the 12 years since then, the number has fallen, for a cumulative drop of 42.1%. Direct losses in those fires have risen but by less than the rate of inflation, and the cumulative drop there has been 25.4%. Most of the decline in fires and losses occurred prior to 1984, but progress since 1985 has been steady if less spectacular.

The death toll has fluctuated widely over the same period, and in 1989, the death toll of 615 was virtually the same as the 1977 death toll of 635. The 1989 figure, third lowest in the 13 years, was 37% below the 1983 peak and 16% above the 1984 low.

#### JUVENILE FIRESETTERS LEAD ARRESTS

Statistics compiled by the FBI for the Uniform Crime Reports show that in 1989 juveniles (under age 18) accounted for 43% of all arson arrests and 39% of all arson offenses solved by arrest. No other FBI index crime (the most serious felonies) has so high a rate of juvenile involvement. The majority of arson arrestees were age 19 or younger.

The percentage of arson arrestees under age 10 {7.5%} - was by far the highest for any crime the FBI tracks, whether major or minor. Three of every ten arson arrestees {29.7%} was under age 15. Progress in reducing arson clearly requires more widespread use of juvenile firesetter counseling programs. Their success, in turn, depends upon a recognition of the different types of juvenile firesetters and the extent to which the degree of emotional disturbance is often correlated with the age of the perpetrator. (Note that fires due to fireplay - fires set by children too

young to understand the consequences of their actions - are not included in arson statistics). A typology of juvenile firesetters, such as the one used by the U.S. Fire Administration, is essential to an effective matching of counseling program with juvenile firesetter.

#### A HARD CRIME TO SOLVE

Only 15% of 1989 arson offenses were solved by arrest, according to FBI statistics, the lowest clearance rate in the decade but still typical for property crimes. By combining NFPA analysis of fire causes with a series of U.S. Department of Justice (DoJ) special studies of the criminal justice system, it is now possible to estimate that only about 3% of set fires lead to convictions.

Of all the incendiary, suspicious, and unknown cause fires that the NFPA estimates are set fires, only half are confirmed as incendiary and are even considered as arson offenses. Of those, 80-85% are never solved. Of those that are solved by arrest, about half of the suspects are never prosecuted. And about one-third of those prosecuted are not convicted. Put these together, and the result is only 3% of set fires lead to convictions.

Other DoJ studies suggest that about one-third of those convicted receive no jail or prison time and most get less than two years. Once released, more than half who were imprisoned will be rearrested (not necessarily for arson) within three years.

These statistics point to areas of potential improvement throughout the process, but the greatest leverage by far would be achieved in the earliest stages of confirming fires as set and solving arson crimes, both of which require more investigative resources for fire and police departments.

This summary is taken from *U.S. Arson Trends and Patterns - 1989*, an annual report of the Fire Analysis and Research Division, NFPA, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101 and may be reproduced freely with appropriate source credit.

## **HEARING LOSS HOT ISSUE FOR FIREFIGHTERS**

A National Institute for Occupational Safety and Health (NIOSH) study has shown that 78% of 424 Pittsburgh firefighters have suffered hearing losses which may be job related.

The hearing loss is attributed to working in close proximity to diesel and gasoline engines, sirens, and air horns; according to Fred Childs, Firefighter Local No. 1 safety committee chairman. Fire Chief Charles Dickinson is more cautious in his interpretation.

"We know there has to be some hearing loss attributable [to working around sirens]. But even NIOSH is saying it's not clear what impact the identifiable noise has had," Dickinson commented.

Nevertheless, Pittsburgh fire departments have taken new safety precautions.

New pumper trucks will be built with a noise level no higher than 85 dbs., 5 below the 90-db. standard set by the Federal Occupational Safety and Health Administration.

In addition to earplugs, firefighters have been issued earmuffs with a radio receiver and microphone for communication when working near loud pumper trucks.

"We can't correct the things that occurred in the past but we certainly can make sure they won't continue," Dickinson said.

Government Product News, March 1990, Worker Safety.

## **NFPA FIRESAFETY EDUCATIONAL SUCCESS PROJECT**

Are we making a difference?  
Does firesafety education really work?  
The NFPA Public Education Division

conducted a pilot project to document the effectiveness of firesafety education in the U.S. and Canada, from January 1 to July 31, 1990. During this period 96 anecdotes were submitted from 34 states and 4 provinces. 196 lives were saved as a result of the proper firesafety actions taken by the informed individuals named in each situation.

Each month the Fire Marshal Bureau will present one story that was submitted as a clear demonstration that education can and does make a difference in protecting lives and property from fire.

ON HIS WAY HOME FROM SCHOOL, seven-year-old Michael MacPhee heard the beeping noise of a smoke detector coming from a neighbor's house. He and his younger sister, Amanda, also noticed smoke billowing out a window. They yelled for their mother, who immediately dialed 911, to report the fire.

Rose MacPhee then ran to the house and felt the door. Finding it to be hot, she did not open it, but instead began to alert other neighbors she thought might be in some danger.

When the firefighters arrived, Mrs. MacPhee told them she thought someone might be inside. The fire was caused by a pot left on the burner and was extinguished quickly.

There was one victim who suffered slight smoke inhalation. "I guess it pays to watch 'Rescue 911'," said Mrs. MacPhee. "That's where I learned to do everything."

## **ADVANCED FIRE AND ARSON CAREER DEVELOPMENT SCHOOL**

Scheduled to be held on February 21-22, 1991 in Klamath Fall, Oregon, the course will cover: Understanding electrical systems, terminology, overcurrent devices and operation, electricity and fire investigation, electrical evidence and



investigation, electrical evidence and the fire scene, electrical fire causes, household appliances, and evaluation of suspected electrical equipment.

For more information, contact Larry Behrenz, Oregon State Police (503) 883-5711 or Ron Eichelkraut, Klamath Falls Fire Department (503) 883-5351.

## **ANNOUNCEMENT**

The 22nd Annual Northwest Management Seminar will be held in Portland, Oregon, March 13, 14, and 15, 1991. It is sponsored by the Oregon Fire Chiefs' Association.

The theme is "The Challenge of the 90's".

**KEYNOTE PLATFORM:** Dan Quayle, Vice President of the United States; Mark Hatfield, U.S. Senator, Oregon; Olin Greene, U.S. Fire Administrator.

**MEDIA RELATIONS:** Hal Bruno, Political Director, ABC News, Washington, D.C.

**LIFE'S TOO SHORT NOT TO WORK TOGETHER:** Dr. Don Essig, President of Don Essig and Associates, author of "Personal Excellence For Key People" and voice of the University of Oregon Ducks.

**INTENTIONAL MANAGEMENT:** Dr. Marcia Shaw, President of Intentional Management Systems.

**PLEASE LISTEN, IN CHINESE!** Dr. Burt Wells, Emeritus Professor of Speech, voted No. 1 choice as best speaker nationwide by Diners Club.

College credit: 2 hours upper division or graduate through Western Oregon State College.

Information: Don Milligan, Registrar, 461 Sacre Lane N., Monmouth, Oregon 97361 (503) 838-2309



## **FEDERAL LEGISLATIVE REPORT "THE 101 CONGRESS IN REVIEW**

By Ray E. Blehm, Jr.

U.S. Fire Administration and the National Fire Academy reunified on November 5th. The official announcement of the reunification was given by the Director of FEMA, Wallace Stickney and Chairman of the Congressional Fire Services Caucus, Rep. Curt Weldon (R-Pa).

The Fire Academy, created as part of USFA in 1974, has been separated from USFA since 1982. Director Stickney says that the reunification will give a stronger federal focus to fire prevention and control.

**HR 4522** -- Now public law 101-446. Introduced by Rep. Jan Meyers (R-Ks). Signed 10/22/90. Directs the USFA Administrator review information relevant to hazardous materials emergencies for clarity, accuracy and orientation towards emergency implementation. A working group of federal, state, local agencies and chemical industry representatives will be charged with rendering current information into a clear and concise form.

**HR 293** -- The Fire Safe Cigarette Act (Moakley D-Ma) now public law 101-352. Calls for development of a

standard test to determine cigarette ignition propensity.

**S 2936 -- HAZARDOUS MATERIAL TRANSPORTATION UNIFORM SAFETY ACT** now public law 101-615. (Exon, D-Ne). Requires the permitting and registration of certain hazardous materials carriers and shippers and pre-empts state and local laws concerning hazmat transport. It provides small amounts of money to help states plan for and respond to hazmat incidents, additional DOT inspectors and a study or the feasibility of a centralized data reporting system.

**SJR 77 -- (Sarbanes D-Md).** Makes the National Fallen Firefighter Memorial, at the National Fire Academy, the official national memorial to volunteer and career firefighters who die in the line of duty.

**HR 94 -- (Boehdert, R-NY).** The Hotel and Motel Fire Safety Act now public law 101-391. Prohibits federally funded conferences from being held in unsprinklered hotels and motels over three stories in height.

**S 1630 -- The Clean Air Act Amendments (Baucus D-Mt).** Requires phase out of halons in the year 2000. This is more slowly than other CFC and it also contains an exception after the year 2000 for the North Slope. After the current cold snap, maybe the exception should be for any area that gets as cold as the north slope.

**S 2785 -- (D'Amato, R-NY).** Public Safety Officers Death Benefits Amendment now public law 101-647. Gives coverage for total and permanent disability in the line of duty and adds EMS employees on the same level as police and fire personnel. This was added to the 1990 Crime Bill.

**S 933 -- (Harkin, D-Ia).** The Americans with Disabilities Act of 1990 now public law 101-336. Established comprehensive prohibition on

discrimination based on disabilities and will likely impact Building Codes as well as hiring practices of police and fire departments.

**HR 3979 -- Federal Employees Pay Comparability Act.** (Ackerman, D-NY). Now public law 101-509. Sections dealing with "Special occupational pay systems" will address problems of equity for federal firefighters.

**HR 215 -- (Oakar, D-Oh).** Now public law 101-173. Will help to determine pay for federal firefighters for irregular, unscheduled overtime.

**SJR 177 -- (Bond, R-Mo).** Designates October 29 as "Fire Safety At Home - Change Your Clock, Change Your Battery Day".

**HR 3955 -- The National Forces Mobilization Act (Harris, D-Al).** Now public law 101-624. As part of the 1990 Farm Bill. Authorizes \$70 million to prepare state forest firefighting agencies and rural volunteer fire departments to handle forest fire emergencies. Funds will be a state or local match with federal funds on a 50-50 basis.

**SJR 217 -- (Wilson, R-Ca).** Now public law 101-242. Designated February 4, 1990 to February 10, 1990 as "National Burn Awareness Week".

**S 2240 -- AIDS Prevention Act of 1990 (Kennedy, D-Ma).** Now public law 101-381. Sets guidelines for the notification of fire and emergency services personnel who have come in contact with patients infected with hepatitis B, rubella, AIDS and other infectious diseases.

**HR 829 -- The Wildfire Suppression Assistance Act.** (Volkmer, D-Mo). Now public law 101-11. Authorizes the Secretary of Agriculture to contract with Canadian Government for use of their aerial tankers to fight forest fires.

**AVIATION** Safety Bill included in final budget package (PL101-508) will allow several airports to combine training facilities and train firefighters off site.

**HR 1602** -- Trauma Care Systems Planning and Development Act of 1989 (Bates, D-Ca). Now public law 101-590. Amended Public Health Service Act to improve emergency medical services and trauma care and provides for grants from the Department of Health and Human Services to improve rural EMS programs.

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**SEVERAL FIRE** related pieces of legislation failed to pass the 101st. Congress. They are:

HR-4065 -- (Weldon R-Pa). The National Disaster Preparedness Inventory Act.

HR 911 -- (Porter, R-Ill). The Volunteer Protection Act of 1989.

HR 4098 --(Weldon, R-Pa). S. 1933 (Heinz, R-Pa). The Benjamin Franklin Memorial Fire Service Bill of Rights.

Even with these exceptions, the 101st. Congress was a remarkable event in terms of Fire Service Legislation. The results of political action are clear and tangible. When the sleeping giant stirs and moves, many possibilities occur.

To help insure future success at the federal level, the fire service needs to support efforts like the Congressional Fire Service Caucus. Therefore, mark your calendar for Tuesday, April 30, 1991 for the 3rd annual National Fire and Emergency Services Dinner.

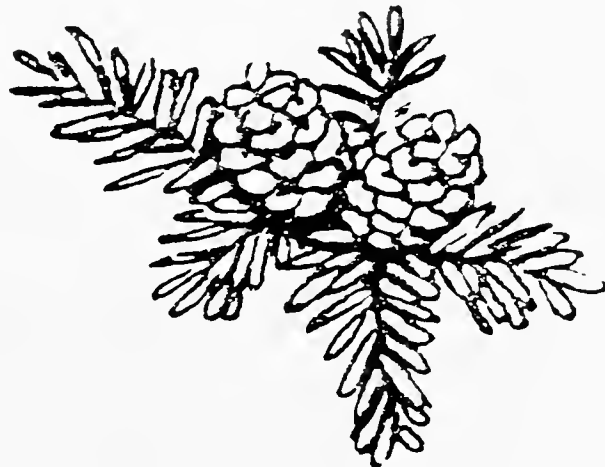
For information, call Karen Cook at CFSI (202) 371-1277 or consider a contribution to the Congressional Fire

Services Institute, 900 2nd. Street N.E., Suite 207, Washington, D.C. 20002.

## *SEASONS*

## *GREETINGS*

### *FROM ALL OF US AT THE MONTANA STATE FIRE MARSHAL BUREAU*



**REGION I**  
**ADVANCED FIRE INVESTIGATION COURSE**  
**KALISPELL FEBRUARY 16-17, 1991**

Those who take the Basic Investigation Course or who have received it in the past will be eligible for an Advanced Investigation Course tentatively scheduled for February 16-17 and hosted by the South Kalispell Fire District. This course features live burns that are set and extinguished for investigation, teams develop evidence, and one teams investigation is selected for presentation in a live mock trial before an actual judge with prosecutor and defense attorneys present.

Four Deputy State Fire Marshals are required to present this course and the number of students must be at least 20, with a maximum of 30.

To register for this course, contact either the Kalispell Fire Department, Drawer 1997, Kalispell, Montana, phone 752-6601 - or - Deputy State Fire Marshal Mike Stotts at 415 Meadow Hills Drive, Kalispell, Montana 59903, phone 756-1553. To register by mail, please use the registration form from this article

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**1991 REGION I - ADVANCED FIRE INVESTIGATION COURSE**

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_

STATE \_\_\_\_\_ TELEPHONE (\_\_\_\_) \_\_\_\_\_

ORGANIZATION \_\_\_\_\_ POSITION \_\_\_\_\_

BUSINESS ADDRESS \_\_\_\_\_ BUS.PHONE (\_\_\_\_) \_\_\_\_\_

REGISTRATION DEADLINE IS FEBRUARY 11, 1991

FEE: \$50.00

MAKE CHECKS PAYABLE TO: MONTANA DEPARTMENT OF JUSTICE / FIRE MARSHAL BUREAU

POST CERTIFICATION REQUESTED: \_\_\_\_\_

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Fees for these courses are intended to defray costs. Courses will be

**REGION I**  
**BASIC FIRE INVESTIGATION COURSE**  
**KALISPELL JANUARY 19-20, 1991**

The State Fire Marshal Bureau will be presenting the Basic Fire Investigation Course for police and law enforcement personnel in Lincoln, Flathead, Sanders, Lake, Mineral, Missoula, Granite and Ravalli Counties.

Because the Bureau no longer has grant funds to defray the cost of these schools, there will now be a charge per student, which is required by the manner in which the legislature provided funding authority.

The schools will be instructed by Deputy State Fire Marshals Nieuwenhuyse and Stotts, at the Kalispell Fire Department training room. Pre-registration of 20 students will be the minimum required for the Bureau to present this training.

To register for this course, contact either the Kalispell Fire Department, Drawer 1997, Kalispell, Montana, phone 752-6601 - or - Deputy State Fire Marshal Mike Stotts at 415 Meadow Hills Drive, Kalispell, Montana 59903, phone 756-1553. To register by mail, please use the registration form from this article

**1991 REGION I - BASIC FIRE INVESTIGATION COURSE**

NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_  
STATE \_\_\_\_\_ TELEPHONE (\_\_\_\_) \_\_\_\_\_  
ORGANIZATION \_\_\_\_\_ POSITION \_\_\_\_\_  
BUSINESS ADDRESS \_\_\_\_\_ BUS.PHONE (\_\_\_\_) \_\_\_\_\_

REGISTRATION DEADLINE IS JANUARY 14, 1991

FEE: \$12.50

MAKE CHECKS PAYABLE TO: MONTANA DEPARTMENT OF JUSTICE / FIRE MARSHAL BUREAU

POST CERTIFICATION REQUESTED: \_\_\_\_\_

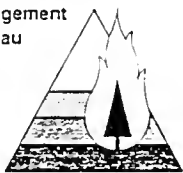
Fees for these courses are intended to defray costs. Courses will be scheduled throughout the state as resources and time dictate.

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## FIRE BREAKS

MONTANA DEPARTMENT OF STATE LANDS

Fire Management  
Bureau



Forestry  
Division

## WILDLAND NEWS & VIEWS

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### RURAL COMMUNITY FIRE PROTECTION

DSL is continuing to solicit applications for matching funds through the federally funded Rural Community Fire Protection (RCFP) program. Applications are accepted from fire departments, rural fire districts, volunteer fire companies, and other fire organizations involved with rural fire protection in communities with populations of 10,000 or less, or a group of small communities totalling over 10,000 population (such as county-wide fire organizations).

These grant funds are used to defray up to one half the cost of developing or improving local fire protection. Potential projects include training, equipment purchase or development, fire prevention, and organization; the construction of fire stations or equipment storage facilities does not qualify.

Each year, about 90-100 applications are received. Of these, 50-60 are approved for funding. The total money available to DSL for disbursement in 1991 is anticipated to be comparable to the past few years - about \$55,000.

Applications and additional information can be obtained from DSL's Land Offices in Billings, Helena, Kalispell, Lewistown, Miles City, or Missoula, or at the following address:

Department of State Lands  
Forestry Division  
2705 Spurgin Road  
Missoula, Montana 59801  
Attn: RCFP

Completed applications should be returned to the Forestry Division and must be received no later than February 15, 1991.

If you have any further questions or comments, feel free to give a call at 542-4222.

Kelly R. Close, Rural Fire Coordinator  
Fire Management Bureau

### MONTANA COUNTY FIREWARDEN'S ASSOCIATION

On September 13, 1990, a meeting was held in Great Falls to discuss the possibility of forming a County Firewardens Association. Those in attendance included Firewardens from five counties, and two DSL representatives. Tom O'Hara, Cascade County Firewarden, opened the meeting.

Several firewardens who could not attend the meeting had expressed an interest in forming an association, and an open discussion followed as to the pros and cons. Those in favor of forming an association felt that since not all County Firewardens are involved in a fire service organization (such as Sheriffs or County Commissioners), they have different agendas that need to be addressed. In addition, the agenda of County Firewardens in general is considerably different from other fire organizations / associations in Montana. Some also felt that a County Firewardens Association would help strengthen the State/County Coop program by providing a forum for all current firewardens to get together periodically, and would provide a unified voice in working with DSL, the Fire Marshall's Office, the Fire Services Training School, DES, and other organizations. After considerable discussion, it was decided to form an association with members present and committed. Those in attendance also decided to hold a spring meeting in Lewistown on March 23-24, 1991, and an agenda will be sent out to all county firewardens. Current members will act as a steering committee until the 1991 meeting. Further information can be obtained from:

Montana County Firewardens Association  
c/o Tom O'Hara  
325 Second Avenue North  
Great Falls, Montana 59401

## NATIONAL FIRE FORCES MOBILIZATION ACT

Faced with recent bad fire years, continued drought, a growing wildland/urban interface problem, and increasing reliance on local volunteer firefighting forces for wildfire suppression, Congress has recently passed the National Fire Forces Mobilization Act. This act amends the 1978 Cooperative Forestry Assistance Act by authorizing \$70 million annually to be used to further train and equip state and local firefighting forces. 10% of the funds go to the U.S. Forest Service for program administration, 45% goes to state agencies, and 45% is distributed to local fire protection organizations by the states in a manner similar to the RCFP program.

The good news is that the bill has passed; the bad news is that no money was allocated this year. In the coming year, the National Association of State Foresters will be pushing to get actual money appropriated in next year's budget.

The tentative funding formula for local fire organizations is based heavily on the total number of fire departments and districts in each state. Many feel this is biased against the states that have the greatest wildfire problems and heavily utilize local forces on wildfires (such as Montana). By the proposed formula, all the western states combined would receive less than 20% of the local agency portion of the funding. In the coming year, representatives of the Western States Fire Managers will be pursuing a modified funding formula. Stay tuned!

## NOVEMBER WILDLAND FIRES

Once again new definitions are needed to define Montana's "fire season".

Communities throughout Montana experienced some of their largest fire experiences in recent years this past November. While the traditional events for many Montana Fire Fighters involves time in the Outdoors for hunting, extensive time was spent with firefighting tools in hand rather than the rifle.

Total acreage and fire numbers for both Department of State Lands direct protection and County Assist fires totaled 6,144 acres with 295 responses through September 7, 1990. On October 22nd those numbers had reached 17,533 acres and 403 responses. However by the end of November those numbers had reached 53,519 acres and 415 responses. Once again these figures do not represent Forest Service, Bureau of Land Management, or Bureau of Indian Affairs Fires. If those acreages were added the figures would swell even more. Of total acreage burned in 1990, 67% occurred in November. This does not reflect the number of structures lost, total dollar loss, nor suppression costs.

While the lessons learned may vary, one of the common elements of discussion will be the need for preparedness throughout the entire year.



Shelby Volunteer Fire Department's new Smeal fire engine. It's a 1990 GMC Top Kick with a 427 EFI, 5 speed with a top mount crossmount with a 454 V-8 to drive Pump. 1000 GPM Waterous Pump and 1000 Gallon tank. Elkhart Stinger deck mount monitor. It also has a foam eductor with a 20 gallon tank. Grass lines were installed on the sides with a rear booster line. The engine has 11 compartments.



## MONTANA DSL WILDLAND FIRE TRAINING

Wildland Fire Training is available to Montana Fire Departments through the local Land and Unit offices of the Montana Department of State Lands. The following schedule is a listing of dates and locations of training that has been scheduled as of mid- December. These classes require contact with either local fire departments, contact persons, or DSL offices to confirm registration and attendance.

### BASIC WILDLAND FIREFIGHTING

The Basic Wildland Firefighting training course is designed to bring firefighters to a common level of knowledge and understanding of the fundamentals of wildland fire suppression. Information is provided for fire fighters safety, terminology, fire fighting tools, initial attack, and Incident Command

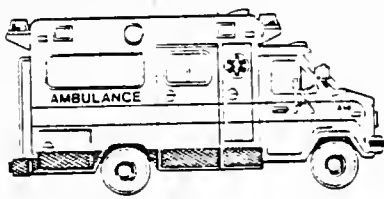
<u>DATE</u>	<u>LOCATION</u>	<u>CONTACT PERSON</u>	<u>LAND OFFICE</u>
Jan 3 & 4	Knees	Dan Pickard	NELO
Jan 11 12 & 13	Baker		ELO
Jan 12 & 13	Twin Bridges		CLO
Jan 12 & 26	Absarokee	Keith Martin	SLO
Jan 16 & 17	Billings	Lloyd Papke	SLO
Jan 16 - 19	Roberts,Belfry & Red Lodge Rural	Brett Waters	SLO
Jan 19 & 20	Chinook	Larry Wisch	NELO
Jan 19 & 20	Helena		CLO
Jan 21 - 24 & 29, 31	Shepherd	Sue Taylor Rich Lundy	SLO
Jan 26 & 27	Fairfield		CLO
Jan 25 26 & 27	Sidney		ELO
Feb 3 & 4	Wolf Point	Lyle Knudsen Clark Johnson	NELO
Feb 7, 21 Mar 7, 21 Apr 4, 18	Hysham	Ron Thomas	SLO
Feb 23 & 24	Malta	Clark Kelly	NELO
Mar 2 & 3	Shelby		CLO
Apr 5,6,& 7	Belfield, N.D.		ELO

## INTERMEDIATE WILD FIREFIGHTER

The Intermediate Wildland Firefighting training course was designed to be the next step in the wildland firefighting for volunteer and rural firefighters. This package provides a refresher of knowledge learned in the Basic course and continues with specific information to accommodate initial attack and extended attack needs in wildland fire suppression. The course covers fireline location and construction, water use, organizational requirements, briefings, air operations, and logistical support.

<u>DATES</u>	<u>LOCATION</u>	<u>CONTACT PERSON LAND OFFICE</u>	
Jan 12 & 13	Lewistown	Don Peterson	NELO
Jan 19 & 20	Dillon		CLO
Jan 23 , 30 Mar 6,13,20	Big Timber	Doug Lowry	SLO
Feb 4,5, 11 12 & 16	Joliet	Mel Hoferer	SLO
Feb 4, 11, 18 Feb 25 & Mar 4	Miles City		ELO
Feb 8, 9 & 10	Savage		ELO
Feb 9 & 10	Boulder		CLO
Feb 16 & 17	Helena		CLO
Feb 25 - 27 Mar 4 & 6	Park City	Randy Thom	SLO
Mar 1, 2, & 3	Ekalaka		ELO
Mar 8, 9, & 10	Beach ND		ELO
Mar 30 & 31	Plevna		ELO
Mar 2 & 3	Jordan		NELO
Mar 30 & 31	Plentywood		NELO
Apr 22 - 26	Shepherd	Sue Taylor	SLO
Mar or Apr	Worden	Mike Krieger	SLO

# 1st Responder Training



First Responder and Emergency Medical Technician training has been available in Montana for many years. During the last year, the Emergency Medical Services Bureau of the Montana Department of Health and Environmental Sciences has developed a system of training which should enable persons certified at one level to progress more easily to other levels.

This article briefly overviews the Montana First Responder training programs. Detailed information about student eligibility, requirements to conduct the training programs and authorization requirements are not presented. Persons interested in receiving additional information should contact the EMS Bureau.

## First Responder

Description The Montana Responder program is a 44-hour course designed to teach patient care and scene stabilization to individuals most likely to be the first on the scene or an illness or injury but who do not have the responsibility for patient packaging and transportation. This program is intended for public safety personnel such as law enforcement, fire and non-transporting medical units. The Montana First Responder program is conducted according to the latest national curriculum of the US Department of Transportation.

Act Allowed The Montana First Responder may stabilize the patient at the scene of an accident including the administration of oxygen, use of oral airways, and limited use of splinting.

Because the First Responder is not trained to transport patients, the national standard 1st Responder curriculum does not include the use of spinal immobilization devices nor the use of MAST trousers. They may assist EMT's and other persons authorized to use backboards, First Responders are not authorized to use backboards. Montana has 1,335 First Responders.

## First Responder-Ambulance

Description The First Responder Ambulance is designed to provide skills and knowledge necessary to meet minimum requirements for ambulance personnel. The material covered covers patient care, patient packaging, ambulance operations and transportation of injured patient. Persons successfully completing these courses may serve as ambulance attendants; however January 1, 1996, only one of the two required ambulance attendants may be First Responder-Ambulance.

The Course will be offered in two formats:

- \* First Responder Ambulance Course
  - intended to take non-trained individuals to the First Responder Ambulance level
  - approximately 88 hours in length
- \* Ambulance module
  - intended to currently authorized First responders to the First Responder Ambulance level
  - approximately 44 hours in length

Acts Allowed In addition to the skills allowed to the First Responder, persons successfully completing the First Responder Ambulance may use other splinting materials and backboards. However, they are not authorized to use MAST trousers.

## First Responder to EMT - Basic Bridge

Description The First Responder to EMT Bridge course is approximately 68 hours in length. This course offers the knowledge and skill objectives necessary for those trained at the First Responder level to meet the eligibility requirements of course completion for EMT - Basic

certification.

Acts Allowed This is not a separate level of certification. The bridge course is simply a method for First Responders to receive training equivalent to an EMT, and then be eligible to take the EMT examination. Until they become certified as EMT's, they are not authorized any additional skills.

There has been one pilot course on First Responder to EMT Bridge taught. It is anticipated this course will be available in early 1991.

### **First Responder Ambulance to EMT Bridge**

Description The First Responder Ambulance to EMT Bridge course is approximately 35 hours in length. The course offers the knowledge and skill objectives necessary for those trained at the First Responder Ambulance level to meet the eligibility requirement of course completion for EMT-Basic certification.

Acts Allowed This is not a separate level of certification. The bridge course is simply a method for First Responder Ambulance to receive training equivalent to an EMTs, they are not authorized any additional skills. It is anticipated this course will become available in early 1991.

Future articles will explain Emergency Medical Technician training and certification requirements, and emergency medical services licensing requirements (non-transporting units, ground ambulances, air ambulances). Should you have any questions, please contact:

EMS Bureau  
Dept.of Health & Env.Sciences  
Cogswell Building  
Helena, MT 59620  
(406) 444-3895  
FAX (406) 444-2606

## **HELP WANTED**

Fire Inspector, Olath, Kansas  
\$25,137 - \$37,718  
Apply by Jan.11 (913) 782-2600

Asst.Chief, King County, Washington  
Phone (206) 242-2040

Fire Prevention Officer, Brighton Fire  
District, 425 South Main, Brighton,  
Colorado, Apply before Jan 15

Asst.Chief, Caldwell, Idaho  
(208)455-3033 until Jan.4

# FIRE TRAINING SECTION

## FTS JOINS MSUES...

The Board of Regents of Higher Education voted on January 26, 1990 to affiliate the Fire Training School with the Montana State University Extension Service. The action was in response to recommendations made by the Fire Services Training Advisory Council and the Commissioner of Higher Education as the option most capable of improving programs for local fire services in the future. The issue of where FTS should be housed will be given additional study by the Commissioner with no decision expected before the Legislature has addressed the issue.

## ...OR DOES IT?

The above article "FTS Joins MSUES" appeared in the Fire Guard a few months ago. The affiliation has yet to be fully consummated, and there is another proposal on the table.

According to the administration's budget book; "The executive recommends consolidating the FTS with the Fire Management Bureau of the Department of State Lands. The consolidation saves \$100,000 of general fund monies per year through: 1) management efficiencies; 2) elimination of duplications; and 3) utilization of \$58,500 per year of private landowner assessments for fire protection pursuant MCA 76-13-201(2). Because urban development in forested areas creates fire protection problems associated with urban/wildland fire interface, there will be more adequate protection of Montana resources with consolidation of structural and wildland fire services."

An article on the issue in the Great Falls Tribune, December 5th quoted Ross Fitzgerald, Chairman of the Fire Training Advisory Council and Fire Chief in Power as saying, "What they're doing is virtually destroying the fire training program as it exists today." "It's going to be us versus (State Budget Director) Rod Sundsted." Don Artley, Deputy Administrator, DSL Division of Forestry, commented in the same article; "We would put them closer to the people who request the training, we have not made a decision on where we would put people." He went on to say that the administration wants to make the changes because of potential savings.

Artley said the increase (referring to the fire assessment fees which would partially offset the cost in general funds) would mostly affect owners of smaller parcels of forest land - a justifiable charge since those parcels are more likely to have fire problems than larger ones. He also said it is legitimate to use fees paid by people owning forested land to pay for structural fire training because so many Montanans are building on forested land. "It's real hard to tell if you are fighting structural fires or wildland fires," in some cases he said.

The budget proposal will reduce FTS staff by one, and reduce travel, maintenance, communications, and equipment funding significantly below the actual expenditures for FY90, and cause an increase in fees charged local fire service personnel for FTS services.

## Montana Computer Bulletin Board 1-800-962-1729

The Fire Training School updates its training schedule to this bulletin board on a weekly basis. The Fire Guard training schedule is published every two months. Computer users may want to check it out.

# Communications!!!!



Of all the fire scene supervisors surveyed, 70% said communications is their biggest incident scene problem. Many organizations have found that no matter how sophisticated their radio equipment, the most important element in effective emergency communications is the consistent use of good communications procedures. Printed below is the procedure recommended by the FTS and commonly referred to as the "Order Model". If adopted, practiced and applied it can improve communications for your organization, as it has for many.

In the example used, the incident scene is at Klines Drive-in Restaurant, therefore, the IC has used Kline to designate this particular incident. Jackson is the name of the crew leader receiving the assignment for primary search. Side Alpha refers to the "A" side of the building which is the address side, unless otherwise designated by the IC. The other four sides are designated B, C, and D clockwise.

## Communications Process

1. Sender will call the receiver by their unit ID, then give their own unit ID.  
ex. "Jackson, Kline IC"

2. Receiver will give the sender's unit then their own unit ID to indicate they are ready to receive.

ex. "Kline IC, Jackson"

3. Sender will send the message, tactical order, etc.

ex. "Primary search, 2nd floor, enter door side Alpha, go right, standby door side Alpha."

4. Receiver will briefly restate the message.

ex. "Primary search, 2nd floor, enter door side Alpha, go right, standby door side Alpha."

5. Sender will confirm ("Affirmative") or correct receiver.

ex. "Affirmative"

The reasons for a performance driven communication process include:

1. Increases accuracy in communication.  
Feedback by the receiver provides sender with the ability to check whether the receiver got the message as it was sent.

2. Reduces quantity of transmissions when combined with standard tactics and standard terminology.

Accurately communicated messages must be sent only once.

Standard tactics and terminology reduce the amount of detail necessary to communicate a message.

3. Improves fire fighter safety.  
Messages that are sent once and receive accurately increase the efficiency of fireground operations.

Note: Communications most useful at an incident are reporting completion of or inability to complete assignment, unanticipated conditions, request for additional resources, and emergency traffic.

Contact FTS for additional information or attend a Fireground Operations Academy to get experience in use of the order model.

## PROGRESS?

Too long have we stood silently by, as cotton tails in the brush, while beautiful children maim, disfigure, torture, and kill themselves because of their youthful lack of understanding about the dangers of fire. It is time we got off the sidelines, out of the crowd, and picked up our rightful responsibilities to help extinguish the lethal ignorance we have allowed to flourish for so long.

Where fire and burn injuries are concerned, death is often kinder than life. No "red badge of courage" is worn by children whose faces are scarred and mutilated forever as a result of their learning about fire by experience. The invisible psychological scars, the taunting and teasing, often makes the rest of their lives worse than death.

Should we continue our policy of "never give a child an even break?" Should we continue to be a part of the problem? The price is too high - the cost too great to further disregard our most valuable resource.

Let us instead become part of the solution. Let us pick up the hose line together, educator and fire fighter, and begin to provide the survival training youngsters so richly deserve. They are entitled to it, and who knows, their instructors may also find the subject matter interesting and enlightening.

The above article appeared, without title, in the first edition of the Fire Guard Newsletter in November 1979, eleven years and 49 editions ago! What has changed in the world of fire safety education since then? Federal funding for the FSTS Pub Ed Program ran out and the Legislature was unable to pickup the cost with general fund dollars. The fire service in general gives less energy, and even less lip service to the topic. A few committed people continue their fire safety education programs, but notice a weakening commitment from their chief

and little interest from other fire fighters.

The U. S. Fire Administration recently published "Fire in the United States 1983-1987". The document provides statistical evidence that little has changed since publication of the first Fire Guard. The people who were frequently fire victims when the first Fire Guard was published, are still frequent fire victims. According to the report, Montana, and 33 other states, would have the highest or second highest death rates in the world, if the states were counted as a separate nation! Males, the very young, the very old, Native Americans and Blacks all continue to show up in fire fatality statistics in disproportionate numbers.

On March 16 -17 the Fire Training School will host a Public Fire Safety Education Workshop. Discussions will deal with these issues and include successful programs from Montana and the nation. If your batteries need charging, if you want to renew your commitment to fire safety education, if you are looking for new ideas that will help your fire safety education program, or if you just want to get a program started in your community, **YOU NEED TO BE THERE!**

### Public Fire Safety Education Workshop March 16 - 17 Great Falls

The Fire Training School working with St. Vincents Hospital and NFPA in hosting a 2-day "Hands On" Fire Safety Workshop in Great Falls March 16 - 17. The famous Phoenix F.D. Clowns Larry and Ray are the featured program. They will help us in teaching children using the clown costume. NFPA is trying to send us one of the best Juvenile Fire Setter Councilors in the country. Other programs will deal with school programs, smoke detector programs, burn prevention and related subjects. Make sure you reserve this weekend, and attend this workshop. Register early if you can.

## DETECTOR INVENTOR DIES

U.S. Naval Commander (Ret.) Opal Kermit Bell died July 13, 1990 in Biloxi, Mississippi, at the age of 88. A scientist and inventor, he helped develop guided missile, sonar and satellite technology. In addition, he is credited with inventing the smoke detector 25 years ago after a friend died in a fire when a Christmas tree ignited.

## Protective Clothing

**QUESTION:** In the past, sooty turnouts were the badge of an active fire fighter. Now I'm hearing that I should be tossing my turnouts in the washer on a regular basis. What's the story?

**THE ANSWER:** Much of the new attention to cleaning turnouts is a result of research conducted by the University of Washington. The research showed a significantly high rate of cancer deaths among retired Seattle fire fighters. The figures, based on death certificate information, closely paralleled fire fighter deaths in other cities. The toxins from burning insulation, plastic resins, synthetic fibers, and household chemicals are likely a cause of these increased cancer deaths. For example, recent studies recorded 21 hazardous chemicals in the air at a fire scene after the fire was extinguished and the area was cool. Of these, 19 are listed as toxic by inhalation and/or skin absorption; seven are possible carcinogens.

Carbon particles from the smoke at a fire scene absorb these gaseous toxins. The carbons are then imbedded in the fabric of your turnouts. If you can smell smoke on your gear, you are inhaling the toxins. If you wear that gear, your skin may absorb

some of the toxins. Anyone who comes in contact with contaminated gear is exposed, including families of fire fighters who transport their turnouts in the family car or store their gear at home.

Turnouts saturated with hydrocarbons tend to absorb rather than reflect radiant heat. Clean, light-colored turnouts can reflect up to 30% more radiant heat than soiled turnouts. Although Kevlar, Nomex and PBI fibers are not combustible, if these fibers are impregnated with hydrocarbon, soot, and other deposits, the turnouts can ignite and cause severe burns to fire fighters. Contaminated turnouts are more likely to conduct electricity.

Thoroughly cleaning turnouts, helmets, boots, gloves and equipment will substantially reduce the toxin-bearing contamination. By reducing visible smoke residue, you will remove as much as 96% of the liquid and gaseous toxins it may contain. The cleaning agents must be compatible with the fabrics and materials or you could damage the equipment in the process. Always test every cleaner on an obscure part of the item to assure compatibility and effectiveness. None of the fire resistant manufacturers recommend using bleach on turnouts, such as Purex or Clorox. Household bleaches can destroy as much as 90% of the tensile strength of the fibers.

Finally, clean turnouts will last longer because there are fewer abrasive contaminants wearing down the fibers. And the fire fighter wearing them will last longer.

(Taken for Oregon Gated Wye)

Most of us don't realize how much we have to be thankful for until we have to pay taxes on it.



## SERVEL WARNING

The U.S. Consumer Product Safety Commission is warning consumers to stop using Servel brand gas refrigerators manufactured in the 1930's, '40s, and '50s due to the risk of carbon monoxide poisoning. Over a period of time, especially if the refrigerator has not been used recently, the gas burner can be fouled by dust, dirt, rust or other obstructions. Any gas refrigerator with an improperly adjusted or partially plugged burner can produce carbon monoxide in deadly quantities.

Servel refrigerators continue to be used in vacation and hunting cabins and in homes in remote areas without electricity or where propane is a preferred energy source. Servel will give consumers \$100 in exchange for their old refrigerators. Call 1-800-782-7431 for more information.

## FIRE IN THE UNITED STATES

1983 - 1987

This recently released report is the most comprehensive view of the nation's fire problem we have seen. Most of the information is based on data submitted to the National Fire Incident Reporting System.

Copies of the report are available free by writing to the Office of Fire Data and Analysis, U.S. Fire Administration, 16825 South Seton Ave, Emmitsburg, Maryland 21727.

At every moment of our lives we should be trying to find out, not in what we differ with other people, but in what we agree.

## "WHEN THINGS GO WRONG, YOU BETTER BE DOING IT RIGHT!"

Tragedy was avoided recently at the Harlem Volunteer Fire Department due to a long standing commitment to train in full turnout gear. On November 23, 1990, Harlem Fire Fighters were called to assist the Fort Belknap Fire Department on a brush fire. The fire was accompanied by 40-50 mph winds, unseasonably dry grass and a heavy fuel load. According to Fire Chief Kraig Hansen, Blaine County Fire Engine #721, was operated by fire fighters Tana Johnson and Marty McConnell and officer Vic Miller. They were engaged in putting out a flank of the grass fire when the fire engine abruptly quit. A shifting wind turned the fire towards Engine #721. Efforts to revive the fire engine were to no avail. With no place to escape, the fire fighters stayed with the truck. The fire swept under and over the truck. The fire engine escaped major damage. McConnell and Miller received minor burns and loss of facial hair. All three received stress debriefing. Chief Hanson said, "The deciding factor between serious injury and the fact that the three fire fighters escaped with minor injuries is because all three were properly wearing full turnout gear." The reason for the fire engine failure has not been determined.



Three EMT's receive a patient from a fire fighting crew at Ft. Benton FireGround Operations Academy.

## **ELKHART BRASS NOZZLE REPAIR**

March 16, 1991  
Missoula Aerial Depot

Early registration is suggested for this March 16 class presented by Elkhart Brass Company. This seven hour class deals with dismantling nozzles; repair and replacing gaskets and ball valves within the nozzle.

Steve Erickson, Elkhart Regional Manager will be present to answer your questions and assist during the class. Tools and nozzles will be furnished by the Elkhart Brass Company. Class will begin at 9 AM and conclude about 5 PM at the Aerial Depot west of the Missoula Airport on old Highway 12. Register by calling FTS at 761-7885.

## **22ND ANNUAL NORTHWEST MANAGEMENT SEMINAR**

March 13-15, 1991 Portland Oregon

This three day Management Seminar will feature several speakers including Dan Quayle, Vice-President; Mark Hatfield, U.S.Senator; and Olin Greene, U.S.Fire Administration.

This seminar is directed at Chiefs and mid-managers. It features excellent professional instruction to enhance the knowledge, skills and abilities of those managing and leading today and tomorrow.

For more information, call or write Dr. Julie Searcy, Continuing Education, Western Oregon College, Monmouth, OR 97361.  
(503) 838-8483

Wear a smile and have friends; wear a scowl and have wrinkles.
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## **RESCUE PRECAUTIONS FOR AIR BAGGED- EQUIPPED CARS**

### **Fire in an Air Bag Equipped Car**

\*Use normal rescue and fire extinguishing procedures first.

### **Incident with a Deployed Air Bag**

\*As in all other rescue procedures, wear gloves and safety glasses.

\*Do not introduce air bag residue into your eyes or patient's eyes or wounds.

\*Remove gloves or wash hands after handling deployed air bags.

\*Otherwise, use normal rescue procedures.

### **Incident with Air Bag Not Deployed**

\*Disconnect or cut the negative battery cable.

\*Disconnect the air bag connector at the base of the steering column.

\*Don't cut through the steering column until you disconnect either the battery cables or the air bag connector.

\*If you can't disconnect the air bag connector, then wait 10 minutes after the battery is disconnected before placing your body or objects against the air bag module, except for essential patient care and rescue maneuvers.

\*Do not cut or drill into the air bag module.

\*In the unlikely event that the air bag module is ruptured, don't touch or ingest any exposed chemicals.

\*Otherwise, use normal rescue procedures.

For details on these precautions, write for the pamphlet "Air Bags in GM Cars in Emergency Rescue Situations" to GM Technical Center, Air Bag Booklet, 30200 Mound Road, N2-PR, Warren, MI 48090.

(Article from On Scene, July 90)

## Driver/Operator Instructor Training

The Fire Training School, in cooperation with the Volunteer Fireman's Insurance Company (VFIC), will offer instructor training for individuals interested in becoming trainers for drivers of emergency vehicles. The session will be held the weekend of April 27-28 1991 at FTS. Those completing the course will be given a comprehensive instructor manual for use in their department's training program. There is no charge for this course, however attendance will be limited to one trainer per department, and the course will fill on a first come first serve basis.

## The Forgotten Hazard: Interior Finish

The hazard of interior finishes which spread fires at an dangerous rate, have contributed to many multiple fatality incidents. Few fire inspectors have enough knowledge about the risk associated with such hazards, and as a result, they are frequently overlooked. Fire fighters have literally had to run for their lives when unsafe finish materials have been installed.

The FTS has added a new training video to it's collection which provides vital information on interior wall and ceiling finishes. The video was produced by the ICBO and covers testing and classification, application, allowable flame spread, and textile wall coverings. V0436 - "Regulation of Interior Wall and Ceiling Finishes" is a must for anyone making inspections!

### FIRE SERVICES TRAINING ADVISORY COUNCIL MEETING...

The Fire Services Training Advisory Council will meet January 21, 1991 at MSU in Bozeman. The primary agenda item will be acceptance of a new fire fighter standard for circulation and comment. A revised standard will be adopted in January 92 after a one year fire service comment period.

**FIRE CHIEF'S IFSTA MANUAL SALES**  
Jim Balke Box 382, Belgrade, MT 59714  
Phone 388-6863



Crew is making its second attempt at flat roof ventilation at Ft. Benton FireGround Operations Academy.



Two coaches with their respective crews during a recent FireGround Operations Academy class in Ft. Benton.

## 1

DATE	COURSE	LOCATION
11/1/2019	101	101
11/2/2019	101	101
11/3/2019	101	101
11/4/2019	101	101
11/5/2019	101	101
11/6/2019	101	101
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12/2/2019	101	101
12/3/2019	101	101
12/4/2019	101	101
12/5/2019	101	101
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12/7/2019	101	101
12/8/2019	101	101
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12/10/2019	101	101
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12/24/2019	101	101
12/25/2019	101	101
12/26/2019	101	101
12/27/2019	101	101
12/28/2019	101	101
12/29/2019	101	101
12/30/2019	101	101
12/31/2019	101	101

3	Fire Fighter 1 Intro	Augusta
5 - 6	New Chiefs Course	FTS
5 - 6	NFA FF Health & Safety Program Management	Missoula
5 - 6	NFA Building Construction: Wood & Ordinary	Wolf Point
10 - 11	Fire Prevention for Fire Fighters	FTS
12 - 13	Basic Photography & Camcorder Video	FTS
12 - 13	EMT Basic Exam	Great Falls
15 - 18	DES Radiological Response Team	Bismarck, ND
19 - 20	Chief Alan Brunacini (MSU Strand Union Building)	Bozeman
21	Fire Fighter 1 Intro	White Sulphur Springs

2	Incident Command System	Livingston
2 - 3	NFA Tactical Operations Company Officers 2	W. Glendive
2 - 3	NFA Building Construction: Wood & Ordinary	Creston
8 - 9	EMS Advanced Trauma Life Support	Bozeman
9 - 10	Volunteer Fire Service Management	Harlem
13 - 15	Governor's DES Conference	Helena
19	Incident Command System	Bozeman
20	Incident Command System	Billings
26	Incident Command System	Helena
27	Incident Command System	Great Falls

## 28

## April

5 - 7	Basic Structural Fire Fighting	Helena Valley
9 - 11	DES Effective Communications	Rapid City, SD
20 - 21	NFA Leadership (Problem solving, assessing company needs, running meetings and decision making)	Butte
22 - 24	Politics, Media and Public Affecting Wildland and Urban Fire Program	Missoula
24 - 26	DES Exercise Design	Lewistown
26 - 28	Lewis & Clark Fire Council FGO	Helena Valley
27 - 28	Driver Operator Instructor Training	FTS

## May

4	Wildland Fires Cause & Origin	FTS
5	Auto Vehicle Fires	FTS
4 - 5	EMT Basic Exam	Miles City
7 - 10	DES Radiological Monitor Instructor Class	Miles City
10 - 11	EMS Advanced Trauma Life Support (Bucks T4)	Big Sky
18 - 19	EMT Basic Exam	Missoula
18 - 19	Aerial Platforms	Great Falls FD Training Center

## June

5 - 8	Volunteer Fire Fighter's Convention	Glasgow
13 - 14	EMS Defibrillation, Intermediate, Paramedic	Great Falls
15 - 16	EMT Basic Exam	Great Falls
17 - 18	NFPA Sprinkler Systems (2 Day)	Minneapolis, MN
17 - 19	NFPA Sprinkler Systems (3 Day)	Minneapolis, MN
17 - 20	NFPA National Electrical Code	Minneapolis, MN
17 - 20	DES Basic Radioactive Materials and Haz Mats Transportation	Idaho Falls, ID
18	DES Emergency Response Radioactive and Transportation	Idaho Falls, ID
18 - 19	NFPA Life Safety Code (2 Day)	Minneapolis, MN
18 - 21	NFPA Life Safety Code (4 Day)	Minneapolis, MN
20 - 21	NFPA Fire Alarm Systems	Minneapolis, MN

## July

17 - 19	Montana Firemen's Assoc. Convention	Miles City
23 - 25	DES Radiological Monitor Instructor Class	Bismarck, ND

## September

11 - 12	Creative Financing	Billings
11 - 12	Developing Volunteer Resources	Billings
14 - 15	FF Safety and Survival and Company Officer's Responsibility	Helena Valley
27 - 28	Fire Chief's Conference (Recruiting, Retaining and motivation)	

### REGISTRATION FORM

Course: \_\_\_\_\_ Date: \_\_\_\_\_

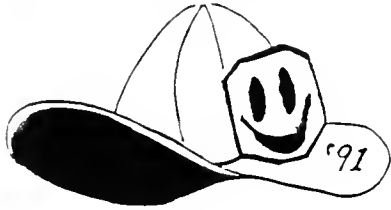
Name \_\_\_\_\_ Address \_\_\_\_\_

Department \_\_\_\_\_ Daytime Phone \_\_\_\_\_

Return to: Fire Training School

2100 16th Avenue South, Great Falls, Montana 59405-4997 Phone: 761-7885

FIRE GUARD NEWSLETTER  
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BULK RATE